

### **Amendments to the Claims:**

1 - 22. (canceled)

23. (currently amended) A method for determining the authenticity of an item, the item carrying a marking exhibiting a viewing-angle dependent light reflection spectrum, the method comprising steps of

a) illuminating said marking with at least a first light source having first spectral characteristics;

b) collecting light reflected by said marking at least at two predefined different observation angles with respect to the plane of the marking, and measuring its respective intensity;

~~— c) optionally storing the measured intensity values of step b) in a permanent digital memory;~~

⇔ c) illuminating said marking with at least a second light source having second spectral characteristics;

⇔ d) collecting light reflected by said marking at least at two predefined different observation angles with respect to the plane of the marking, and measuring its respective intensity; and

~~— f) optionally storing the measured intensity values of step e) in a permanent digital memory; and~~

⇔ e) comparing said measured intensity values of steps b) and ⇔ d) with previously stored corresponding reference values according to a predefined algorithm, and deriving an authenticity indicator from the comparison result using a pre-established decision criterion;

wherein the illumination in each of steps a) and ⇔ c) is a wide-angle illumination.



24. (previously presented) The method according to claim 23, wherein the item is selected from the group consisting of a security document, a valued good or a packaging.

25. (previously presented) The method according to claim 23, wherein said wide-angle illuminating of the marking is provided through a non-imaging-optics device.

26. (previously presented) The method according to claim 25, wherein the non-imaging-optics device is a compound parabolic concentrator (CPC).

27. (previously presented) The method according to claim 23, wherein a first of said at least two predefined observation angles is chosen between  $0^{\circ}$  and  $45^{\circ}$ , and a second of said observation angles is chosen between  $45^{\circ}$  and  $90^{\circ}$ , with respect to normal to the plane of the marking.

28. (previously presented) The method according to claim 23, wherein a first of said at least two predefined observation angles is chosen between  $0^{\circ}$  and  $35^{\circ}$ , and a second of said observation angles is chosen between  $50^{\circ}$  and  $80^{\circ}$ , with respect to normal to the plane of the marking.

29. (previously presented) The method according to claim 23, wherein said light reflected by said marking at said observation angles is collected by the means of optical fibers.

30. (previously presented) The method according to claim 23, wherein the intensity of said light reflected by said marking at said observation angles is measured after passage of said light through an optical filter.



31. (previously presented) The method according to claim 30, wherein said optical filter is a left-or a right-handed circular polarization filter.

32. (previously presented) The method according to claim 23, wherein at least one of said illuminations having different spectral characteristics is provided by a light-emitting diode (LED).

33. (previously presented) The method according to claim 23, wherein at least one of said illuminations having different spectral characteristics is provided by laser diode (LD).

34. (previously presented) The method according to claim 23, wherein at least one of said illuminations having different spectral characteristics is provided by a light source equipped with an optical filter.

35. (previously presented) The method according to claim 23, wherein a prompt or delayed photoluminescence emission from said marking, in the UV-, the visible-, or the IR-range of the electromagnetic spectrum, is measured in addition to said viewing-angle dependent light reflection spectrum.

36. (previously presented) The method according to claim 23, wherein a magnetic property of the marking is measured in addition to said viewing-angle dependent light reflection spectrum.

37. (previously presented) The method according to claim 23, wherein said measured values and said previously stored corresponding reference values are obtained using the same physical device.



38. (previously presented) A device for determining the authenticity of an item, carrying a marking exhibiting a viewing-angle dependent light reflection spectrum; said device comprising

at least two light sources having different spectral characteristics for providing sequential illumination to said marking;

at least two photodetectors with optional collection optics for collecting light reflected by said marking at least at two predefined, different observation angles and delivering an electric signal corresponding to the collected light intensity;

analog-to-digital converting, processing, controlling and memory means, for controlling the light sources, digitizing and storing reflected intensity values, for comparing said intensity values with previously stored corresponding reference values, and for deriving an authenticity indicator from the comparison result, all according to a predefined algorithm and using a pre-established decision criterion;

wherein the device comprises a wide-angle illumination optics for guiding the light of said light sources to said marking.

39. (previously presented) The device according to claim 38, wherein the item is selected from the group consisting of a security document, a valued good or a packaging.

40. (previously presented) The device according to claim 38, wherein said wide-angle illumination optics is a non-imaging-optics device

41. (previously presented) The device according to claim 40, wherein said non-imaging-optics device is a compound parabolic concentrator (CPC).

42. (previously presented) The method according to claim 38, wherein a first of said at least two predefined observation angles is chosen between 0° and 45°, and a second



of said observation angles is chosen between  $45^\circ$  and  $90^\circ$ , with respect to normal to the plane of the marking.

43. (previously presented) The method according to claim 38, wherein a first of said at least two predefined observation angles is chosen between  $0^\circ$  and  $35^\circ$ , and a second of said observation angles is chosen between  $50^\circ$  and  $80^\circ$ , with respect to normal to the plane of the marking.

44. (previously presented) The device according to claim 38, further comprising at least one optical fiber for collecting said light reflected by said marking at said observation angles.

45. (previously presented) The device according to claim 38, further comprising at least one optical filter through which said light reflected by said marking at said observation angles is measured.

46. (previously presented) The device according to claim 45, wherein said optical filter is a left-or a right-handed circular polarization filter.

47. (previously presented) The device according to claim 38, wherein at least one of said light sources is a light-emitting diode (LED).

48. (previously presented) The device according to claim 38, wherein at least one of said light sources is a laser diode (LD).

49. (previously presented) The device according to claim 38, wherein at least one of said light sources is equipped with an optical filter.

50. (previously presented) The device according to claim 38, wherein it supports a programmed learning mode for determining reflected intensity values on a reference



item and storing them as reference values in a digital memory, and a programmed testing mode for determining reflected intensity values on an item to be authenticated and comparing them with said previously determined and stored reference values, thereby deriving said authenticity indicator.